**Technical Response to  
PANHES-22-P-0000 004838   
for FY22 Bragg Abatement, Demolition and Site Restoration**

Submitted on: 23 September 2022, 12:00 local time

Submitted to: US Army Corps of Engineers, Engineering and Support Center,   
Huntsville (CEHNC)  
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Use or disclosure of data contained on this sheet is subject to the restriction on the title page of this documen**T.**

**Submitted by:**

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**Cover Letter**

23-September-2022

To: US Army Corps of Engineers,   
Engineering and Support Center, Huntsville (CEHNC)  
Atten: Reneda Kelley, Contracting Officer

re: Task Order PANHES-22-P-0000 004838

Dear Sir/Madam:

All Phase Services, Inc. is pleased to submit this proposal in response to Task Order REV00   
for demolition at Fort Bragg, North Carolina. Our proposal conforms to the instructions and requirements of the solicitation and addresses the Task Order SOW. We acknowledge receipt of associated maps and Site Survey Report, and Q&A’s, as well as the RFP, including all amendments up to received 06-September-2022. All Phase takes no exceptions to the terms, conditions, and provisions contained therein. Furthermore, we make no assumptions within this proposal that are intended to offset any risk onto the Government.

Our proposed contract value for the base bid is $\_\_\_\_\_\_\_\_\_\_\_; we show price breakouts for both demolition and abatement in our cost summary sheets. A cost summary sheet is also included for Options ($\_\_\_\_\_\_\_\_\_). We will meet the minimum landfill diversion goal for this task order.

Eric Newman, Pre-Construction Manager of All Phase Services, Inc. will be the point of contact for this proposal with full authority to negotiate and sign the contract resulting from this procurement on All Phase’s behalf, with contact information provided, below. Sal Rabah, President of All Phase, will be the primary POC.

Respectfully,

/S/

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*Required Clause Regarding Site Investigation and Conditions Affecting the Work*:

The Contractor acknowledges that it has taken steps reasonably necessary to ascertain the nature and location of the work, and that it has investigated and satisfied itself as to the general and local conditions which can affect the work or its cost, including but not limited to:

(1) Conditions bearing upon transportation, disposal, handling, and storage of materials;

(2) The availability of labor, water, electric power, and roads;

(3) Uncertainties of weather, river stages, tides, or similar physical conditions at the site;

(4) The conformation and conditions of the ground; and

(5) The character of equipment and facilities needed preliminary to and during work performance.

(a) The Contractor also acknowledges that it has satisfied itself as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is ascertainable from an inspection of the site, including all exploratory work done by the Government, as well as from the drawings and specifications made a part of this contract. Any failure of the Contractor to take the actions described and acknowledged in this paragraph will not relieve the Contractor from responsibility for estimating properly the difficulty and cost of successfully performing the work, or for proceeding to successfully perform the work without additional expense to the Government.

(b) The Government assumes no responsibility for any conclusions or interpretations made by the Contractor based on the information made available by the Government. Nor does the Government assume responsibility for any understanding reached or representation made concerning conditions which can affect the work by any of its officers or agents before the execution of this contract, unless that understanding, or representation is expressly stated in this contract.

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# Technical Approach

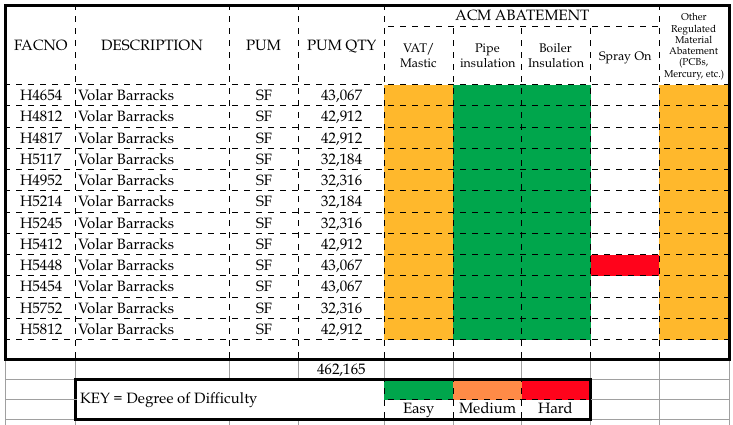
All Phase will provide all personnel, tools and equipment, and expertise for demolition services at Fort Bragg, North Carolina. Our process starts with project planning, including how we will handle abatement and disposal of hazardous materials such as asbestos. We will carry out demolition based on an approved work plan, after we have received a Notice to Proceed (NTP). Our task-specific demolition approach is based on years of experience working for the Army Corps of Engineers and other government agencies to demolish facilities. All Phase will then remove all debris to appropriate land fills, divert waste as appropriate, and recycle as much of the raw materials as possible, meeting or exceeding the government’s targets. We will then restore the site to a usable state. All Phase is cognizant of government security requirements, and will secure the site during this effort. Site security is important to site safety, as well, and we will ensure the well-being of work crews and any other personnel authorized to be on-site. Attached to this document is a GANTT representation of the schedule for All Phase to carry out this task.

| **Structures for Demolition (base bid)** | | | |
| --- | --- | --- | --- |
| Facility Number | Facility Type | UOM | # of Units |
| H4654 | Volar Barracks | SF | 43,067 |
| H4812 | Volar Barracks | SF | 42,912 |
| H4817 | Volar Barracks | SF | 42,912 |
| H5117 | Volar Barracks | SF | 32,184 |
| H4952 | Volar Barracks | SF | 32,316 |
| H5214 | Volar Barracks | SF | 32,184 |
| H5245 | Volar Barracks | SF | 32,316 |
| H5412 | Volar Barracks | SF | 42,912 |
| H5448 | Volar Barracks | SF | 43,067 |
| H5454 | Volar Barracks | SF | 43,067 |
| H5752 | Volar Barracks | SF | 32,316 |
| H5812 | Volar Barracks | SF | 42,912 |
| **(see appendix for optional structures)** | | | |

The All Phase project planning approach is based on the concept that the demolition process should flow like an actual waterfall, i.e., each stage and phase will be completed in its entirety before moving on to the next one. For instance, all the requirements for clearing the building must be completed first before beginning the first demolition phase. Site restoration to include fill, grass, and stormwater drainage control.We understand the requirements to be for All Phase to provide all design services, labor, tools, equipment, and services necessary to demolish the buildings and all items, systems, and appurtenances. All Phase has carefully considered the requirements of the SOW and all other work scope documents and understand the abatement task in terms of hazardous material sources and difficulty per location (Table 1).

From site visit and Pre-Demolition Survey Reports, we expect to encounter asbestos containing material ACM in the bid structures from various sources including flooring/roofing/windows, TS, joint compound, transite, insulation, paneling, gaskets, electrical wire, caulks, and sealants. ACM removal associated with joint compound, TSI, window glazing, transite, caulk, roofing, and ACM paneling is projected to be moderately difficult. All ACM noted in the RFP will be abated by All Phase prior to demolition. Unanticipated ACM encountered during contract work activities will be cause for immediate work cessation and notification of USACE for further direction. The survey materials provided show ORM in 10 of the base bid buildings. All Phase will prepare any final drawings or building maps showing locations of ACM and ORM needed to meet regulatory requirements. All work we perform will comply with applicable codes and standards, as identified in the PWS. Technical Specifications will be edited from the Unified Facility Guide Specifications (UFGS) format (from Whole Building Design Guide.org) coordinated with the required disciplines, specifically Section 02 41 00 Demolition and Deconstruction.

## Table 1. Hazardous Material Abatement Projected Difficulty per Location



Manpower and PCM sampling needs are estimated in Table 2; this table only lists structures shown to contain ACM in the pre-demolition reports. The abatement team will consist of a supervisor and trained abatement workers. This team will systematically move from structure to structure removing hazardous materials and enabling subsequent site preparation and demolition. ORM labor is included in Table 5 (demolition section). All Phase will consult the Fort Bragg record of fiber reinforcement containing ACM in cementitious materials, including concrete.

## Table 2. Hazardous Material Abatement Manpower Projection

All Phase will self-perform all work associated with this task order. We will also call upon specialty consultants, vendors, and waste handlers to assist as needed. These entities are summarized in Table 3.

## Table 3. Subcontractors, Consultants, Vendors, And Waste Handlers

| **Name** | **Address** | **Distance** | **Cost** |
| --- | --- | --- | --- |
| **Omni Source Metal Recycling** | 445 Glidden St.  Fayetteville, NC28301 | 13.1 miles 23 min | $5.50/100 lbs. |
| **Cumberland County Landfill** | 698 St Ann St  Fayetteville, NC 28301 | 8.0 miles  17 min |  |
|  | Inert debris -clean concrete/ bricks \*\*\*no rebar |  | $18.00 ton  $0.90 per 100# |
|  | Crushed Rock |  | $14/ton or $0.70/100# |
|  | Compost/Mulch |  | $40/cubic yard |
|  | C&D (clean) |  | $36.00/ton  $1.80 per 100 lbs. |
|  | C&D w/other debris  (carpet/furniture) |  | $300.00 per load |
|  | Shingles (clean) |  | $22.00/ton  $1.00 per 100 lbs. |
|  | Shingles (mixed w/ other debris) |  | $36.00/ton  $1.80 per 100# |
| **Elite Concrete Finishing (trucking)** | 6840 Brasswood Drive  Fayetteville, NC 28314 |  |  |
| **WHI Sand and Gravel** | 2311 Clinton Road  Fayetteville, NC 283.12 | 14.4 miles  26 min | Topsoil $30.80 cu. yd.  Sand/Clay fill $19.50 cu.yd.  Based on 2000 cu.yds. topoil and 1000 cu. yds backfill (Carlos) |
| **Snow Hill Turf Farm (Sod)** | 1004 Cedar Creek Rd Fayetteville, NC 28312 | 27.4 miles/26 min | $202.25/per pallet  450 sq. Ft. |

# 1. Project Planning

All Phase will submit a site-specific demolition plan, drawings, and specifications for the execution of this project, four (4) weeks prior to start of work. The demolition activities will be performed in accordance with the submitted and approved documents after receipt of the NTP. All Phase will be responsible for controlling access to the site and for always maintaining a secure site.

***Design* *Considerations***: All Phase will utilize available information provided as the basis of the demolition for the proposed project and shall include contractor site visit for investigation. All Phase will be responsible for obtaining additional information required to execute the demolition. This shall include retrieving from the government as-builts, site measurements, surveys, tests, and other material necessary to provide the Contractor with an adequate basis for demolition. We understand that, at present, the potential for HAZMAT conditions for this project exist. All Phase will develop Safety Plans for all known hazards. Asbestos and lead based paint will be required to be abated before demolition by the design build contractor. All Phase will field verify any as-built, site surveys, geotechnical information, or other information that shall have been provided by the Government. The design documents will require the acceptance of the Government prior to initiation. Meeting review minutes and design review comment responses are the responsibility of the Architect/Engineer/All Phase and turned over to the government for review and filing. Meetings on construction status will be as frequently as needed.

Demolition Drawings will be prepared in AutoCAD. Demolition Drawings and Specifications will be delivered for review, comment, and approval in an iterative and incremental process. Full size Demolition drawings will be 36" x 24". Reduced drawings will be 11" x 17". The All Phase project architect/engineer will stamp, date, and sign all final drawings prior to final base representative signatures. All applicable base activity representatives will sign the review block on the cover page of the final Demo drawings.

# 2. Abatement Approach and Disposal

Other regulated materials (ORM) will be removed first. Any household hazardous substances encountered (cleaning, automotive, paints, etc.) will be collected, and stored at a centralized location for collection, packaging, and proper disposition. We do not expect to encounter unusual forms of contamination in this task order such as unexploded ordnance and laboratory biological and chemical wastes, but All Phase does have extensive experience dealing with such hazardous materials.

Other hazardous/controlled materials identified in the Pre-Demolition Report include various kinds of fluorescent bulbs, PCB-containing ballasts, smoke detectors, and emergency exit signs. All Phase will remove these materials per universal waste rules for disposal and recycling by the subcontractor noted in Table 3. All Freon will be recovered by the vendor noted in Table 3 (franchise will be a small business). Demolition debris will be checked by TCLP for lead content to determine whether any debris needs to go to a special landfill. Lead-Containing Paint (Paint with Lead but Not Considered Lead-Based Painted) is regulated by OSHA, for occupational exposure to lead containing materials during construction activities. Any occurrence of lead in construction materials could be potentially hazardous during activities that may impact a lead containing material. Lead-based painted components will be handled in accordance with OSHA and HUD. We will test concrete materials for ACM reinforcing fibers.

## Abatement and Disposal of Asbestos Containing Material

When asbestos is present in building construction material, the most fundamental abatement requirements are to (1) remove ALL regulated asbestos containing materials prior to demolition; (2) properly protect the workers and the immediate environment from any exposure to Asbestos Containing Materials (ACM); and (3) package, transport, and dispose of all ACM properly. Common sources of asbestos containing materials in FRP projects include pipe and boiler insulation, joint compound, transite, caulking, glazing, roofing tars, flashing, mastic, and floor tiles. Fully meeting not only Federal but also State and Installation-specific requirements is essential to correct performance of all Task Orders. We will meet all requirements of the state Department of Environmental Protection which may involve additional regulatory procedures.

To protect workers and occupants in the vicinity of the sites scheduled for deconstruction, we use the most stringent methodologies for the abatement and disposal of ACM. This ensures the safety of workers and residents and proper tracking of the location of all ACM. Following is a summary of the specific methodologies we will employ to abate asbestos at the government site. Asbestos abatement will require special containment equipment including personnel and waste decontamination chambers, water filtering equipment to 20 micron and 5 microns before disposal, HEPA filtered vacuums, HEPA equipped negative air units, airless sprayers, manometers for recording pressure differential, electrical generators, and personal air sampling equipment. All Phase maintains newer abatement equipment and has next-day access to abatement material and equipment through our supplier, noted in Table 3 (a small business). We will request 8-hour turnaround time from our laboratory for all al air test results to minimize delays. Upon passing a final visual inspection and air clearance testing, then the building will be cleared for demolition.

Full enclosure method for friable materials (e.g., pipe insulation, floor tile, and mastic, joint compound, tank insulation, boiler, and duct insulation): These materials will be removed as OSHA Class I. All critical openings such as windows, doors, vents, etc., will be sealed with two layers of 6-mil poly and duct tape. All walls’ floors and ceilings will be sealed with two layers of 6-mil plastic to create a full containment, only exposing the materials scheduled for abatement. Decontamination chambers with showers for personnel and waste will be erected at the entrance to work areas. HEPA Air filtration units will be utilized to ensure and maintain negative air pressure in the work area during abatement.

Glove bag method for friable materials: Materials such as pipe insulation and pipe fittings will also be removed as OSHA Class I in areas with less than 260 linear feet of ACM. A 20-foot Control Area extending around the work area (where feasible) will be barricaded-off and signs posted. Working in two-man teams, workers will attach the glove bag to the pipe to be abated. One worker will continuously mist the pipe with amended water while the second worker removes the pipe insulation and places it into the bottom of the glove bag.

The abated pipe will be wiped down and the interior of the bag cleaned so that all the waste is in the bottom of the bag. The Glove Bag will be twisted, and duct tape secured over the twist point. The bag will be removed from the pipe and placed into a second six-mil appropriately labeled waste bag. This process will be continued until all asbestos has been removed. The abated pipe will be lightly misted with a US EPA approved removal encapsulant to permanently bind any remaining microscopic fibers.

Method for Category II non-friable materials (e.g., window glazing, door caulking, gaskets, expansion joint caulking): These materials will be removed as OSHA Class II. A 20-ft Control Area extending around work (where feasible) will be barricaded-off and signs will be posted in all areas that can be visible or have access. Materials will be removed intact if feasible. Pieces will be cut into manageable sections after wetting. Materials will be wrapped or bagged and then sealed within the work area, then carried, labeled, and placed in the appropriate ACM waste container. Worker decontamination will be achieved utilizing a Remote Decontamination facility placed near the work area. Roofing material as well as material above the worker’s reach will be accessed in compliance with the USACE Fall Protection Guide. A Fall Protection survey will be completed by the SSHO, and a Fall Protection & Prevention plan created for the site-specific fall hazards. All materials will be adequately wet and kept wet during removal.

Method for Category I non-friable materials including flooring and roofing: Category I non-friable materials will be demolished with the building, under wet demolition methods, and taken to the landfill as ACM-containing C&D debris only if permissible by law and Installation regulations. All ACM on concrete to be recycled will be abated prior to demolition.

***Decontamination Unit***: The decontamination station is designed to allow passage to and from the work area during removal operations with no leakage of asbestos fibers outside the contained work area. The unit consists of a clean room, washroom, and equipment room separated by airlocks. The airlocks are formed by overlapping three sheets of polyethylene at the exit of each room, and three sheets at the entrance to the next room with 2-3 feet of space between barriers.

***Clean Room***: No asbestos contaminated items will enter this room. Workers use this area to suit up, store street clothes, and put on respiratory protection before they enter the work area, and to dress in clean clothes after washing.

***Shower Room***: Workers pass through the shower room on their way to the removal area and use the shower area on their way out after leaving their contaminated clothing in the equipment room. Wastewater will be collected and treated as asbestos containing material or filtered through a 5-micron filter before disposal into the sanitary sewer. State and local requirements on methods of wastewater disposal vary. All Phase will follow all local and state specifications for handling wastewater.

***Equipment Room***: This is a contaminated area where equipment, boots, hard hats, goggles, and contaminated work clothes are stored. Workers place disposable clothing such as coveralls, boots, and hoods in bins before leaving this area for the washroom. Respirators are worn until workers enter the washroom and these are then thoroughly soaked with water. The equipment room may require clean up several times daily to prevent asbestos materials from being tracked into the washroom and clean room.

***Protective Equipment***: Disposal clothing will consist of full body polypropylene coveralls with attached head and foot covers for all workers in the work area for the duration of the work. The respiratory protection will be MSHA/NIOSH approved half-face negative air respirators with type A cartridges during the set-up of the work areas and PAPR full face respirators with type A cartridges during bulk removal and final cleaning or until a Negative Exposure Assessment (NEA) is established. A sufficient amount of this protective gear will be present not only for All Phase employees, but for authorized visitors as well. In addition to the coveralls described above, rubber boots and gloves will also be provided to the workers. The rubber boots provide the worker with a non-skid sole to prevent slipping inside the work area, but also prevents deterioration of the coveralls’ preformed bootie after extended use. The rubber boots will be removed in the work area prior to entering the dirty room of the decontamination chamber, thus leaving as much of the contaminants in the work area as possible, instead of tracking them into the "dirty room". Once these boots are in the work area, they can be reused simply by washing in the work area and re-applying over the employee's new coveralls. After the work area has passed a visual inspection, the boots will be decontaminated.

Initial Exposure Assessment: We will ensure that all work operations stated here are covered by OSHA 29 CFR 1926.1101 (f) (2) and that a "competent person" conducts an exposure assessment immediately before or at the initiation of the operation to ascertain expected exposures during that operation or workplace. The assessment must be completed in time to comply with requirements which are triggered by exposure data or the lack of a "negative exposure assessment," and to provide information necessary to assure that all control systems planned are appropriate for that operation and will work properly.

***Basis of Initial Exposure Assessment***: Unless a negative exposure assessment has been made, the initial exposure assessment will, if feasible, be based on personal OSHA monitoring conducted. The assessment will take into consideration monitoring results and all observations, information, or calculations which indicate employee exposure to asbestos, including any previous monitoring conducted in the workplace, or operations of the employer that indicate levels of airborne asbestos likely to be encountered on the job. For Class I asbestos work, until the employer conducts exposure monitoring and documents that employees on that job will not be exposed more than the PELs, or otherwise makes a negative exposure assessment, we will presume that employees are exposed more than the TWA and excursion limit.

***Cleanup during Gross Removal***: Cleaning of the work area will begin shortly after workers start removing the asbestos-containing material from the substrate. A floor support crew will be responsible for bagging the material soon after it is removed, while it is still damp. The material is to be collected from the floor with squeegees, plastic shovels, or other appropriate tools and placed in 6 mil labeled bags for disposal.

***Perform Final Wipe Down of Equipment***: After the work crew has completed re-cleaning of the areas noted on the inspection, the equipment should be thoroughly cleaned (gross contamination was removed earlier). Equipment should be wet-wiped or tack ragged, washed off in the shower at the waste load-out area, wrapped in poly, or placed in plastic bags. Equipment that is not needed for completion of the project should be removed from the work area. The negative air filtration units will remain in place and operate for the remainder of the cleanup operation until clearance samples are collected.

***Visual Inspection of all Surface Areas***: After all tasks have been accomplished, a thorough visual inspection of the area should be conducted by an All Phase supervisor and the Industrial Hygiene Technician (IHT) on-site. The inspector and the supervisor will check for visual contamination on the substrate from which the asbestos containing material has been removed, on ledges, on tops of doors, indented corners and other areas that might "catch" falling material or contain residual material.

***Encapsulation Methods***: The containment barrier and all surfaces inside must pass visual inspection before applying the sealant to all surfaces within. All workers performing encapsulation will wear disposable protective clothing and respirators for asbestos because the area is treated as contaminated. The encapsulant, when required, will be applied using a low-pressure airless sprayer. All Phase will submit the material safety data sheets (MSDS) for approval.

***Final Clearance Monitoring***: The asbestos supervisor will conduct final visuals for all non-friable ACM. The on-site IHT will conduct final air sampling for all friable material. When the air sampling results indicate the airborne fiber concentration meets the criteria for clearance, the containment and decontamination chambers will be dismantled.

***Training & Medical Surveillance***: All Phase workers and supervisors who will be performing asbestos abatement have been trained according to proposed EPA regulations listed in CFR 40, Part 763, Sub-part E, and Appendix C. All asbestos abatement workers and supervisors have received both classroom and practical training in the proper set-up, removal, clean-up, and disposal of asbestos materials. All workers and supervisors who are to perform asbestos removal work will receive an initial medical evaluation prior to beginning work. Each employee is then re-evaluated annually to make sure they are physically able to wear a respirator and work in this trade. Testing performed on each employee includes pulmonary function test, general physical, and x-ray examinations. Records are documented in the employees file for 30 years.

***Asbestos Disposition***: Any potentially friable asbestos-containing materials must be kept wet in order to keep fibers from becoming airborne. All ACM waste will be placed in approved, marked containers (e.g., smaller amounts in special sealable plastic bags; large amounts sealed inside plastic 55-gallon drums made for this purpose or other approved containers). C&D debris may include nonfriable asbestos. A completed Waste Manifest identifying the Generator, Contractor, and Landfill Operator will be created.

# 3. Project Execution

At All Phase, we recognize that on-site management requires a chain of different tasks and responsibilities which are followed with great precision for the demolition project to be delivered according to the PMP. This on-site PM expands, updates, and modifies the PMP in conjunction with the All Phase team as necessary to reflect further information, the government’s detailed specifications or changed circumstances. When appropriate, the PM will make proposals for the acceleration of all or part of any demolition work package or task elements to achieve the target dates of the project.

On-site, the PM will effectively manage operatives, plant, equipment, services, and office facilities, and may approve, on the advice of the All Phase team on the site, changes to tasking to improve safety and efficiency. The PM will establish all base line data which may be required for the execution of any works, and co-ordinate any further setting out conducted by the workforce. The on-site PM will establish and effectively manage task execution and final acceptance procedures and monitor their implementation. The PM will instruct any subcontractors regarding required documentation to be handed over to ensure timely completion of the demolition. The PM is full-time on site as the deconstruction manager. Everything at this stage focuses on the successful delivery of the demolition of the buildings in conjunction with our targets for quality, schedule, cost, and safety.

***Regulations and Permitting***: The work shall comply with applicable Air Force codes and standards, unless otherwise directed. All Phase Superintendents and workers will have their state accreditations to work on this project. All Phase will coordinate removal and disposal of all regulated materials with the state Department of Environmental Protection.

In accord with accepted engineer requirements and any engineering survey to be performed by a Professional Engineer (see Table 3), who will stamp the Demolition Work Plan to satisfy this requirement. The Work Plan will incorporate information from the pre-proposal conference (if applicable), site visits, pre-demolition environmental surveys, and other documents as appropriate, to address the specific needs of this task order. Initial Work Plans will be developed within the time allotted by the RFP schedule. All Phase project personnel will attend an on-board review on site, if needed, and be prepared to address, resolve, and incorporate all comments at this meeting. A Final Work Plan will be provided, within 5 working days or as per the project schedule. All Phase will highlight all revisions made in response to comments so that such changes can easily be tracked throughout the project. We will insert a “Changes List” at the front of the document for each re-submittal.

***Coordination***: During the course of the project, All Phase will keep the CO/COTR informed via weekly and monthly progress meetings and reports summarizing progress against schedule, significant events, waste volume and disposition, etc. We will use the Quality Control System (QCS) module of USACE’s Resident Management System to record, maintain, and submit required information throughout the task order period. All Phase will also interact with base personnel during weekly quality inspections. Following is a discussion of specific coordination items.

***Traffic and Work Hours***: Haul routes will be identified/approved after award but prior to mobilization.

***Staging***: We will confirm the precise locations for staging with the CO/COR.

***Utilities***: All Phase will be responsible for all utility disconnects and coordinate all utility cutting and capping, 10 days in advance of milestone dates posted in the demolition schedule.m including utilities previously disconnected by others. These milestones will be documented within the Work Plan schedule as part of the NTP and will be validated with the government site manager at the project Kick-Off Meeting. We note that none of the utilities are privatized and there will be no disconnection fees. The government will provide water and electricity to All Phase at no cost. Location and elevation of utility lines and caps will be documented on the as-built-drawings and submitted to the COR at project close out. There is no requirement for GPS location of utility caps for this project.

***Controlled Materials***: ACM and other controlled materials will be handled in accordance with all federal, state, and local regulations. All work will be coordinated with the Environmental Management Division Asbestos Coordinator and in accordance with any existing Asbestos Management Plans. Prior to transport of any controlled materials, EMD will be presented a manifest for approval.

***Ordnance Explosive Safety Support***: An explosives safety submission (ESS) may be required if UXO is encountered.

***Reporting***: All Phase will submit a status report via e-mail every week to the Government Project Manager by close of business on the first working day of each week. We will submit a monthly Progress Report not later than the tenth day of the month.

***Close-out***: All Phase will submit an electronic closeout package (final report) no later than 20 working days after completion of project (following the FRP-12-001 format). This report will contain a detailed description of work performed, lessons learned, and a summary of quantity and type of debris materials recycled, salvaged, reused, and disposed.

***Execution***: Upon award, All Phase will immediately start coordinating all submittals and arranging storage areas on base for abatement equipment & materials, fuel tank(s) with a spill pan, equipment lay down areas, and asbestos container locations. We will submit all 10-day notifications according to the progress work schedule. We will implement proper storm water & erosion control protective measures and maintain a clean job site. All interior equipment and machinery will be removed. Exterior pole mounted lights and other equipment that hinders demolition or constitutes a safety hazard will also be removed.

Our Quality Control Manager (QCM) will perform a walk-through survey of the buildings (with an AHERA-certified, state-accredited asbestos inspector, if necessary) prior to demolition to assure the identified ACM has been removed and during demolition to inspect for previously unidentified ACM. If unexpected suspect ACM is encountered during demolition, work will cease, and immediate notification will be given to the government and local COE representative for further direction. Once targeted facilities and structures have been fully deactivated and all hazardous materials removed, the structures will be collapsed using a demolition excavator equipped with bucket and thumb and hammer breaker and a skid steer loader.

All Phase will regulate traffic for trucks exiting the sites, if required. We will orient all drivers on the procedures for proper Trip Ticket record keeping. Off-site vehicle tracking of dirt, soils, and sediments and the generation of dust will be minimized or eliminated to the maximum extent practical. The construction entrance and exit are the BMPs for minimizing off-site tracking of soils. Under conditions where soils have high moisture content, it may be necessary to build a wash area to remove solids from vehicles leaving the project site.

## Preliminary Schedule

In the attached appendix, we attach our work schedule in the form of a Gantt Chart. The schedule is broken down into four main work phases: (1) Start-up + Mobilization; (2) Hazmat Abatement + Salvage + Demolition, (3) Site Restoration + Demobilization; and (4) Project Close-out. As described previously, All Phase will execute the project using an abatement crew consisting of a Supervisor overseeing laborers. The demolition crew will consist of a Supervisor plus operators and laborers. There is no stated order of priority in the SOW. Following the project startup phase, the base bid structures targeted will be systematically abated and demolished in the order shown in the schedule.

## Change Orders

By closely reviewing the master schedule on a weekly basis, All Phase will anticipate impacts caused by owner changes, unforeseen site conditions, weather, etc. We can create fragnets to predict the direct impact certain events may have on the schedule, whether these are positive or negative. If we foresee a potential slippage in the schedule, we can remedy the situation by increasing the length of our workdays, adding workdays, or adding extra work shifts if permitted by USACE and the project installation. By relying on the total quality management process of our QC Plan and tightly monitoring our schedule, we will be proactive in avoiding or minimizing project delays as opposed to reacting once the delay has already occurred.

***Unforeseen Conditions and Change Orders***: Unforeseen conditions may arise at FRP demolition-sites owing to undiscovered presence of hazardous materials, contaminated soils, safety issues with proposed demolition strategy, issues with recycling/waste disposal, approval of stormwater and erosion measures, presence of wildlife, etc. To mitigate these risks, All Phase maintains close working relationships with qualified experts in the areas of SWPPP, wildlife, industrial hygiene, and handling of UXO, if discovered (see Table 3). Our project team will coordinate closely with these experts whenever needed and regularly update the COR on any findings that pertain to unforeseen work conditions. We will factor permitting, wildlife and archeological concerns, etc., into our pre-demo surveys, inspections, and schedules as thoroughly as possible. If our senior management team has agreed that a Change Order is appropriate, the Project Manager will manage the information needed for submitting a change order request. President Carlos Martins will be involved in the process to ensure the company’s most accurate price estimate for the Change Order. Based on our experience with FRP task orders, All Phase often declines to proceed with a formal submittal for Change Orders that can be self-performed at a cost of less than $15K. Exercising this option is a good business decision when it avoids significant work stoppages, schedule delays, and/or extra costs.

# 4. Demolition Approach

For the demolition of the buildings go smoothly, we will draft a Project Management Plan (PMP) for the government’s review. This is carefully laid out, as our demolition experts will conduct a structural analysis of the building to provide the answers needed to ensure the PMP is comprehensive. For example, demolishing a building with a party wall may require extra precautions to preserve the integrity of the surrounding buildings. The equipment we will use for this project are:

## Task Order-Specific Approach

We distinguish each of the main demolition structure “types” and indicate how difficult we anticipate the required effort will be (Table 4). Prior to beginning work, All Phase will submit a site-specific demolition plan, drawings, and specifications for the execution of this project. The demolition activities for will be performed in accordance with the submitted and approved documents. All Phase will be responsible for controlling access to the site and for always maintaining a secure site. In the interest of occupational safety and health, we will perform the work in accordance with EM 385-1-1 Section 23, Demolition, and other applicable sections. All Phase will provide and maintain shoring, bracing, or structural support to preserve stability and prevent unwanted movement or collapse of the structure or equipment. Excavated material, i.e., soil found natural and uncontaminated, will be placed back in the excavated area. Cutting and removal of asphalt, concrete, concrete pipe, etc., will be required to be taken to an off-site landfill.

Construction debris will be taken to an appropriate landfill. All metals, and concrete, will be taken to a recycler. For the base task (Volar Barracks), all foundations and other underground features will be completely removed as part of the demolition requirements. For the remaining facilities, foundation removal shall be completed to a maximum depth of 4 feet below surrounding grade. Features that extend greater than four feet below surrounding grade will be demolished down to four feet below grade, cut off, perforated to allow flow of ground water, and abandoned in place. All Phase will follow the specific instructions in the revised RFP letter concerning: VOLAR Barracks, Base; Pool Facilities 238, 239, 75012, and 75015; WWII Wood; and, Modular Village.

## Table 4. Demolition Structure Types and Projected Difficulty Per Location

***Manpower and Equipment***: Effort required to salvage and recycle usable materials and demolish and restore the site is summarized in Table 5. The table also includes major equipment usage per location and TCLP sampling needs. Demolition will be accomplished by operators plus laborers. This work crew will systematically demolish facilities per the work schedule discussed in a later section. Heavy equipment needs will include an 80K# class demolition excavator, skid steers, and various trucks. All of the work can be accomplished using an 80K# class excavator with various attachments and skid steers. Little hand work will be required. None of these demolition tasks should prove unusual or difficult.

## Table 5. Manpower and Major Equipment Needed

# 5. Debris Handling, Waste Diversion, Recycling

All Phase is fastidious in its implementation of the 3R’s:

• REDUCE: Make every effort to minimize the amount of waste generated

• REUSE: Segregate items that can potentially be reused

• RECYCLE: Segregate recyclable items and place them in appropriate containers

## Debris Handling

We will comply with the requirement to provide a waste management and diversion plan as required by the SOW. All concrete, brick, and masonry will be separated from the C&D debris. Disposal will be a last resort only when recycling is not economically practical. All abatement and demolition materials will be exported off site to an appropriate waste management landfill (C&D + ACM). Construction and Demolition (C&D) debris will not contain hazardous waste/materials but may contain non-friable asbestos. All friable asbestos will be bagged. We will report all debris that is either recycled or disposed of using the appropriate Debris Recovery Form. Copies of this form and all supporting weight tickets will be provided to the government. We will be responsible for removal packaging and transport of the appliances and furniture indicated in the Volar barracks facilities for reuse elsewhere on the installation. All Furniture, Appliances, Washers and Dryers must be turned in to the Furniture Management Office (FMO) Warehouse.

## Waste Diversion and Recycling

All Phase’s intent is to maximize the economic recycling of materials. This maximizes our return on scrap value and minimizes the waste stream of materials that will go to landfill. Suitable concrete, brick, block, asphalt, metals, and trees and tree limbs that meet Federal, State, and local standards for re-cycle/re-use must go directly to the Lamont Landfill re-cycling facility. All Pahse will transport trees and tree limbs to the DPW landfill. No tree stumps are allowed, and trees cuttings will be sized to lengths not exceeding six feet.

We will either crush and reuse concrete on-site or export it to a local vendor for recycling. Other items that we typically attempt to recycle are windows, doors, appliances, equipment, fencing, and asphalt. All steel, copper, and aluminum will be separated by classification, sized, and placed in containers for delivery to the appropriate vendor. All refrigerants will be recovered by our recovery vendor. We will submit proof of recycling in monthly and final reports.

We estimate that 88% of the demolition waste material by weight can be recycled as tabulated in Table 6. This should meet the minimum diversion goal for this task order. We project a $52,500 salvage credit to the government for all types of scrapped metal.

## Table 6. Demolition Waste Recycling and Salvage

# 6. Site Security and Safety Approach

Providing and maintaining appropriate levels of site security benefits both the government and contractors, as it will protect the site, reduce the potential for problems (such as theft) and restrict entry to only authorized personnel. Upon award, the All Phase PM will conduct an initial site security assessment to verify the conditions as laid out in the RFP.

## Site Security

All Phase has reviewed the security requirements for working at the demolition site. All our personnel will be U.S. Citizens. We will comply with all applicable installation access and security policies and pre-screen all work candidates using the E-Verify Program website. We will ensure that all candidates have two forms of valid government-issued identification, and this information will be logged into E-Verify. We will furnish an initial list of verified or eligible candidates to the COR within three working days of initial contract award.

All Phase will ensure that all employees requiring access to the work site, including subcontractors, complete Antiterrorism Level I Awareness and OPSEC Training within 30 calendar days after contract start date and within 30 calendar days of employees’ reporting for duty. Training certificates of completion will be delivered to the COR within five calendar days after completion of training. Contractor employees will participate in other “Suspicious Activity Reporting Training” as required. We will comply with all standards and procedures of the National Crime Information Center Interstate Identification Index and Terrorist Screening Database.

All Phase will follow gate access and traffic routing as required by the government. For this project, properly placarded 6-ft chain link fencing with secured gates may be required for buildings with proximity to pedestrian traffic. Properly placarded construction fencing is acceptable at all other target structures. Barricades will also be placed at all entrances to the site. Appropriate signage will be installed to assure that site access is limited. Signage will be installed at each of the buildings during remediation to identify the process occurring inside and to limit access.

## Safety Approach

The Site Safety and Health Officer (SSHO) will have overall responsibility for implementation of the All Phase Safety Program. The SSHO (dual-hatted as Quality Control Manager, QCM) will be on-site during all field work activities. The CIH role, if needed, will be filled by the subcontractor noted in Table 3 (a small business). All Phase has pre-qualified our subcontractors to provide CIH expertise and any other special safety and environmental assessment/management that may be required for the task order.

Accident Prevention Plan and Activity Hazard Analysis: All Phase will develop a site-specific health and safety plan embracing accident prevention and identifying potential job site hazards. At the initial site mobilization and prior to starting any work in each area, the Project Manager, Abatement and Demolition Superintendents, and SSHO (and IHT if needed) will make an initial walk through and identify all potential physical hazards prior to mobilizing our work force. Where necessary, hazards will be mitigated through barrier tape, signs, lighting, or physical barriers. In particular, All Phase will develop as part of our APP, specific requirements for any “lift plans” needed to remove vessels, towers, equipment, trusses, or other items that require use of a crane or other lifting device. A specific hazard analysis for each location/type of lift will be provided. Our preliminary activity hazard analysis based on our general methods, procedures, and equipment is presented in the Table 7.

## Table 7. Preliminary Activity Hazard Analysis

| **Hazard or Risk** | **Mitigation Methods** |
| --- | --- |
| **Falls from elevated work areas** | All elevated work will adhere to a 100% tie off policy. All leading edges will be barricaded. All workers will be trained in proper tie off procedures and usage of boom lifts. |
| **Falling debris** | Ensure all areas being demolished are cordoned off with proper danger signs to restrict access to others. Elevated items will be dismantled using controlled lifts and lower structures will be demolished using shears and pulverizers. In all cases, a regulated area will be established that prohibits any persons from entering any potential fall zone. Workers will maintain clear space around their work area; If you must enter another worker’s area, alert him prior to entering. Hard hats will be worn; steel toe boots meeting ANSI Standard Z41 will be worn. |
| **Machine tip over** | Cranes, excavators, and boom lifts will be utilized. Do not operate equipment on grades that exceed manufacturer's recommendations. All machines shall be operated on compacted ground. Crane mats will be used where applicable. Never overload or exceed the capacity of any crane or boom lift. Crane picks shall be pre-engineered. Operators shall wear seat belts when operating equipment. |
| **Equipment hazards** | All ground personnel will stay out of the swing radius; eye contact with operators will be made before approaching equipment. Equipment will not be approached on blind sides. All ground personnel will stay clear of all suspended loads. All equipment will have guards, canopies, or grills to protect from flying objects. Spill and absorbent materials will be readily available; drip pans, polyethylene sheeting or other means will be used for secondary containment. |
| **Electrocution** | Prior to the commencement of work in an area or building, all conduits and equipment shall be identified and tested. Utilities that must remain live during work shall be marked and protected as required. Utilities that are to be disconnected shall be “air-gapped” prior to demolition and dismantling. Equipment will be equipped with GFCI. All equipment will stay a minimum of 15 feet from energized electrical lines (50kV). This distance will increase .4 inches for each 1kV above 50 kV. |
| **Fire** | Removal of combustible materials shall be performed prior to any hot work in any area. Charged fire hoses and fire extinguishers shall be available at all active work areas. No lines shall be torch cut without first cold cutting the end and inspecting it. ABC type fire extinguishers shall be readily available. No smoking in work area. |
| **Slips, trips, and falls** | Housekeeping will be performed daily. Do not allow debris to be scattered on the work site. No running or walking on debris piles. Clean up any liquid spills immediately. Guard rails on platforms 6’ and higher; safety harness when working on roof tops or fixed ladders. |
| **Burns from torch work** | Torch cutters and helpers will wear full protective clothing during torch work including face shields. |
| **Eye injuries** | Safety glasses are the standard minimum eye protection for all work. Upgrade to full face shield for torch cutting or concrete chipping or sawing. |
| **Hearing injuries** | Hearing protection will be worn with a noise reduction rating  capable of maintaining personal exposure below 85 dB(A) (earmuffs  or plugs). SSHO will determine the need for hearing protection. All equipment will be equipped with manufacturer's required mufflers. Ear plugs will be required by those working near machines or using other equipment that creates a noise hazard. |
| **Asbestos Exposure** | Adequate Personal Protective Equipment (PPE) including Tyvex body suits and respirators. Wet methods of removal. Notifications/Warning signs shall be posted at all accesses to job Sites. Good housekeeping and hygiene practices. Medical surveillance. Monitoring of air quality within the project location and personal exposure. |
| **Being run over by trucks or equipment** | Trucks and heavy equipment will be utilized regularly. The maximum speed will be 5 mph. All workers will wear reflective vests for greater visibility. Never work or walk behind an active machine. Spotters will be used when backing up vehicles, loading and unloading backhoe from vehicle and when moving equipment. All equipment will be equipped with backup alarms. Drivers will always keep all workers on foot in sight, if you lose sight of someone, Stop! |
| **Overexertion** | Site personnel will be instructed on proper lifting techniques. Mechanical devices shall be used to reduce manual handling of materials. Team lifting should be utilized if mechanical devices are not available. Instruct personnel on proper body mechanics. Do not twist at the waist, do not bend, twist, and lift at the same time. Individual lifting is limited to 40 lbs. Loads over 40 lbs. require help from a machine. |
| **Heat Exhaustion** | Drink water: Establish work-rest cycles (short and frequent are more beneficial than long and seldom); Identify a shaded, cool rest area; Rotate personnel, alternate job functions. |
| **Frost Bite** | Site personnel will be instructed to wear an inner wicking layer, a middle insulating layer and an outer wind- and water-resistant layer for both upper and lower body. Stay hydrated. Stop and warm your feet or hands if they start to feel numb; this is an early warning of frostbite. |
| **Premature structure collapse** | Work plans for the various structures will have detailed step by step procedures and sequencing for the dismantlement. All work plans shall be adhered to, and work will be continually inspected by the on-site competent person to continually assess the stability of the structure. |
| **Pinch/Cut/Smash** | Cut resistant Kevlar work gloves will be worn when dealing with sharp objects. All hand and power tools will be maintained in safe condition. Guards will be kept in place while using hand and power tools. |

***General Site Safety Approach***: First Aid kits will be located at all projects sites. All superintendents and foremen will be provided with cell phones with all emergency phone numbers pre-programmed. At the end of every day, we will lock all containers, entrances to decontamination units, fuel storage tanks, equipment, and vehicles. We will turn off all water and electrical connections overnight. We will use safety training videos weekly that are produced by the National Demolition Association. All employees will be required to sign off on their understanding of the content of the safety training. Prior to commencing any abatement, we will submit a 10-working day asbestos notification to the state Department of Environmental Protection. We will make sure all abatement workers’ medical records, refresher training, EPA Training certificates, fitness tests, and certificate of worker acknowledgements are up to date.

All demolition areas will be cordoned off with properly placarded chain link or construction fencing. Barricades will also be placed at all entrances to the site. Hard hats, safety shoes, and safety glasses must be worn by all within demarcated work areas. Fire extinguishers will be readily available at all building sites during abatement and demolition. A spill kit will also be available wherever equipment containing hazardous fluids will be operating. Tag out/Lock out procedures will be used and enforced whenever necessary.

***Safety Training***: All Phase employees are given an orientation program on Health and Safety Hazards associated with their particular aspect of employment. All employees are also given specific training for hazardous materials handling, applicable regulations, and protective clothing and equipment that may be required. This training may be administered by the SSHO or outside experts. Employees are briefed on the acceptable methods of handling such materials. Selected personnel will be trained and qualified in the movement of hazardous materials. There will be a continuous training program, instituted by the SSHO to ensure all personnel are constantly aware of existing safety and health hazards and all new hazards and/or methods of handling. The Job-Site Superintendent will also conduct a 5-minute “toolbox” safety meeting each week during which hazards specific to their operation will be discussed.

***Equipment Safety***: We ensure that all operating equipment and tools have guards that meet the requirements stipulated by Army safety regulations. The CQC Officer will designate two individuals to maintain an “Inspection and Maintenance Schedule” for such equipment and ensure prompt action or repair of all violations. We have found that even when OSHA safeguards are in place, hazards can still exist because of the use of unusual equipment combinations or site conditions. As a result, we encourage proactive assessment of site-specific conditions and activities to determine the best procedures and over-and-above safeguards necessary to ensure safe operation.

***Safety Inspections***: The Job-Site Superintendent will make a daily informal safety inspection of work areas and equipment. Any violations will be corrected immediately, or reported to the PM, CO, and COR for necessary action. Compliance in the use of personal protective clothing and equipment is included in the daily inspection. The SSHO will conduct a formal monthly Safety and Health Survey, to include: Inspecting, locating, and correcting all unsafe conditions; and, Ensuring that all signs, traffic markings, equipment, machinery, are marked and painted to identify use and hazard. Colors and marking will conform to OSHA regulations. The SSHO will ensure that a Safety Engineering Study is made prior to changing or modifying any operating process or installing new machinery. The purpose is to protect all employees who may be affected and to protect the environment against potential hazards.

***Monitoring***: Monitoring is an essential part of correct demolition practice and protection of workers and the public. Personnel monitoring via air sampling will be routinely conducted during all asbestos abatement through final clearance monitoring. Respiratory protection will be via Powered Air Purifying Respirator (PAPR) until a NEA has been established. If torch cutting of lead painted material or concrete crushing is scheduled, air samples will be taken for lead and silica. Workplace noise will be monitored with a dosimeter.

***Accident Reporting and Record Keeping***: On the job site, our Job-Site Superintendent will be responsible for recording and reporting all accident exposure and experience, including sub-contractors, incidental to the work. At a minimum, these records will include exposure work hours and a log of occupational injuries and illnesses in accordance with OSHA and specific agency requirements. All injuries and diagnosed occupational illnesses that result in a lost workday or fatality will be reported to the designated authority. On the job site, we will keep records of any employee exposed to toxic materials and/or harmful physical agents. We will also notify the COR and the employee of any excessive exposure, and the hazard control measures that will be taken.

# 7. Site Restoration

Site restoration for the base bid is scheduled to take place after demolition. We estimate that \_\_\_ CY of backfill will be needed to restore the finished surface as specified in the SOW. We will coordinate with the government to access fill material needed for this project. Fill and topsoil will be imported from a local vendor. Clean 2” minus concrete will be acceptable as fill.

Soils will be blended and graded to match the surrounding area with positive drainage and no ponding of water. Soil erosion blankets will be used on steep grades to always meet government requirements.

# 8. Key Personnel

Having scoped this project based on our experience with similar efforts, All Phase is assigning the following Key Personnel, shown in Table 8.

## Table 8. Key Personnel to be Assigned

|  |  |
| --- | --- |
| **Project Manager** | Lind, Eric |
| **Program Manager** | Newman, Eric |
| **Superintendent** | Perez, Jorge |
| **Quality Control Manager** | Soto, Alberto |
| **Safety Officer** | Soto, Alberto |
| **Clerk** | Osorio, Clementina D |

# Appendix - Schedule of Structures to be Demolished

| **Requirements - Demolition of Structures** | | | |
| --- | --- | --- | --- |
| Facility Number | Facility Type | UOM | # of Units |
| H4654 | Volar Barracks | SF | 43,067 |
| H4812 | Volar Barracks | SF | 42,912 |
| H4817 | Volar Barracks | SF | 42,912 |
| H5117 | Volar Barracks | SF | 32,184 |
| H4952 | Volar Barracks | SF | 32,316 |
| H5214 | Volar Barracks | SF | 32,184 |
| H5245 | Volar Barracks | SF | 32,316 |
| H5412 | Volar Barracks | SF | 42,912 |
| H5448 | Volar Barracks | SF | 43,067 |
| H5454 | Volar Barracks | SF | 43,067 |
| H5752 | Volar Barracks | SF | 32,316 |
| H5812 | Volar Barracks | SF | 42,912 |
| **Option 1** | | | |
| A5626 | WWII Wood | SF | 4,720 |
| A5627 | WWII Wood | SF | 4,720 |
| A5628 | WWII Wood | SF | 4,720 |
| A5630 | WWII Wood | SF | 4,720 |
| A5633 | WWII Wood | SF | 1,195 |
| A5635 | WWII Wood | SF | 4,720 |
| A5636 | WWII Wood | SF | 4,720 |
| A5720 | WWII Wood | SF | 1,296 |
| A5721 | WWII Wood | SF | 1,346 |
| A5722 | WWII Wood | SF | 1,346 |
| A5723 | WWII Wood | SF | 1,341 |
| A5724 | WWII Wood | SF | 1,339 |
| A5725 | WWII Wood | SF | 1,339 |
| A5726 | WWII Wood | SF | 1,296 |
| A5727 | WWII Wood | SF | 1,341 |
| A5728 | WWII Wood | SF | 1,346 |
| A5730 | WWII Wood | SF | 1,346 |
| A5731 | WWII Wood | SF | 1,346 |
| A5732 | WWII Wood | SF | 1,346 |
| A5733 | WWII Wood | SF | 1,030 |
| A5735 | WWII Wood | SF | 992 |
| M2338 | WWII Wood | SF | 1,296 |
| M2340 | WWII Wood | SF | 1,296 |
| M2342 | WWII Wood | SF | 1,296 |
| M2343 | WWII Wood | SF | 1,296 |
| M2345 | WWII Wood | SF | 1,296 |
| M2346 | WWII Wood | SF | 1,296 |
| M2348 | WWII Wood | SF | 1,296 |
| M2350 | WWII Wood | SF | 1,296 |
| M2351 | WWII Wood | SF | 1,296 |
| M2353 | WWII Wood | SF | 1,296 |
| M2356 | WWII Wood | SF | 4,720 |
| M2357 | WWII Wood | SF | 4,720 |
| M2359 | WWII Wood | SF | 4,720 |
| M2360 | WWII Wood | SF | 2,360 |
| M2545 | WWII Wood | SF | 30 |
| M2640 | WWII Wood | SF | 4,720 |
| M2642 | WWII Wood | SF | 4,720 |
| M2646 | WWII Wood | SF | 4,720 |
| M2650 | WWII Wood | SF | 4,720 |
| M2651 | WWII Wood | SF | 4,720 |
| M2653 | WWII Wood | SF | 4,720 |
| M5044 | WWII Wood | SF | 3,466 |
| M5051 | WWII Wood | SF | 7,670 |
| J1303 | WWII Wood | SF | 49,424 |
| M6142 | WWII Wood | SF | 2,892 |
| M6143 | WWII Wood | SF | 2,892 |
| M6146 | WWII Wood | SF | 2,892 |
| M6148 | WWII Wood | SF | 2,892 |
| M6150 | WWII Wood | SF | 2,892 |
| M6433 | WWII Wood | SF | 4,720 |
| M6438 | WWII Wood | SF | 4,720 |
| M6445 | WWII Wood | SF | 4,720 |
| M6450 | WWII Wood | SF | 4,720 |
| M6733 | WWII Wood | SF | 2,537 |
| M6746 | WWII Wood | SF | 4,720 |
| M6748 | WWII Wood | SF | 4,720 |
| M6750 | WWII Wood | SF | 4,720 |
| M6751 | WWII Wood | SF | 4,720 |
| 13151 | WWII Wood | SF | 481 |
| 21414 | WWII Wood | SF | 6,312 |
| 21817 | WWII Wood | SF | 4,658 |
| 69241 | WWII Wood | SF | 1,600 |
| 91765 | WWII Wood | SF | 3,685 |
| C7845 | WWII Wood | SF | 4,515 |
| D2919 | Other | SF | 11,361 |
| **Option 2** | | | |
| P2341 | Other | SF | 252 |
| D1910 | Other | SF | 1,188 |
| E4325 | Other | SF | 13,682 |
| N5204 | Other | SF | 144 |
| 15632 | Other | SF | 270 |
| 238 | Other | SF | 1,275 |
| 239 | Other | SF | 140 |
| 717 | Other | SF | 8,500 |
| X6088 | Other | SF | 252 |
| 75012 | Other | SF | .. |
| 75015 | Other | EA | 1 |
| **Option 3** | | | |
| A6273 | Mod Village | SF | 15,540 |
| A6372 | Mod Village | SF | 15,540 |
| 31710 | Mod Village | SF | 7,600 |
| 31810 | Mod Village | SF | 7,600 |
| 31910 | Mod Village | SF | 7,600 |
| 32010 | Mod Village | SF | 7,600 |
| 32011 | Mod Village | SF | 7,600 |
| 32111 | Mod Village | SF | 7,600 |
| 32209 | Mod Village | SF | 1,700 |
| 32211 | Mod Village | SF | 7,600 |
| 32212 | Mod Village | SF | 7,600 |
| 32310 | Mod Village | SF | 7,600 |
| 32311 | Mod Village | SF | 7,600 |
| 32312 | Mod Village | SF | 7,600 |
| 32411 | Mod Village | SF | 7,600 |
| 32413 | Mod Village | SF | 7,600 |
| 32512 | Mod Village | SF | 7,600 |
| 32513 | Mod Village | SF | 7,600 |
| 32525 | Mod Village | SF | 11,147 |
| 32614 | Mod Village | SF | 7,600 |
| 32615 | Mod Village | SF | 7,600 |
| 32712 | Mod Village | SF | 7,600 |
| 32713 | Mod Village | SF | 7,600 |
| 32714 | Mod Village | SF | 7,600 |
| 32715 | Mod Village | SF | 7,600 |
| 32716 | Mod Village | SF | 7,600 |
| 32717 | Mod Village | SF | 7,600 |
| 32718 | Mod Village | SF | 7,600 |
| 32814 | Mod Village | SF | 1,700 |
| 32819 | Mod Village | SF | 7,600 |
| 32820 | Mod Village | SF | 7,600 |
| 32821 | Mod Village | SF | 7,600 |
| 32911 | Mod Village | SF | 7,600 |
| 32920 | Mod Village | SF | 1,700 |
| 32922 | Mod Village | SF | 7,600 |
| 33010 | Mod Village | SF | 7,600 |
| 33011 | Mod Village | SF | 7,600 |
| 33012 | Mod Village | SF | 7,600 |
| 33021 | Mod Village | SF | 7,600 |
| 33113 | Mod Village | SF | 7,600 |
| 33114 | Mod Village | SF | 7,600 |
| 33115 | Mod Village | SF | 7,600 |
| 33121 | Mod Village | SF | 7,600 |
| 33214 | Mod Village | SF | 7,600 |
| 33216 | Mod Village | SF | 7,600 |
| 33217 | Mod Village | SF | 7,600 |
| 33221 | Mod Village | SF | 7,600 |
| 33314 | Mod Village | SF | 7,600 |
| 33315 | Mod Village | SF | 7,600 |
| 33316 | Mod Village | SF | 7,600 |
| 33317 | Mod Village | SF | 7,600 |
| 33321 | Mod Village | SF | 7,600 |
| 33418 | Mod Village | SF | 7,600 |
| 33421 | Mod Village | SF | 7,600 |
| 33519 | Mod Village | SF | 7,600 |
| 33520 | Mod Village | SF | 7,600 |
| 33620 | Mod Village | SF | 7,600 |
| 33621 | Mod Village | SF | 7,600 |
| 33718 | Mod Village | SF | 1,700 |
| 31313 | Mod Village | SF | 5,500 |
| 31314 | Mod Village | SF | 6,144 |
| 31315 | Mod Village | SF | 7,000 |
| 31317 | Mod Village | SF | 6,144 |
| 31318 | Mod Village | SF | 7,000 |
| 31320 | Mod Village | SF | 6,300 |
| 31321 | Mod Village | SF | 6,300 |
| 31322 | Mod Village | SF | 7,000 |
| 31324 | Mod Village | SF | 5,500 |
| 31325 | Mod Village | SF | 7,000 |
| 31327 | Mod Village | SF | 6,144 |
| 31328 | Mod Village | SF | 6,300 |
| 31413 | Mod Village | SF | 5,500 |
| 31414 | Mod Village | SF | 6,300 |
| 31415 | Mod Village | SF | 6,144 |
| 31417 | Mod Village | SF | 6,144 |
| 31418 | Mod Village | SF | 6,144 |
| 31420 | Mod Village | SF | 6,300 |
| 31421 | Mod Village | SF | 6,300 |
| 31422 | Mod Village | SF | 6,144 |
| 31424 | Mod Village | SF | 5,500 |
| 31425 | Mod Village | SF | 6,300 |
| 31426 | Mod Village | SF | 6,300 |
| 31428 | Mod Village | SF | 6,300 |
| 31721 | Mod Village | SF | 5,500 |
| 31722 | Mod Village | SF | 5,500 |
| 31723 | Mod Village | SF | 6,144 |
| 31725 | Mod Village | SF | 5,500 |
| 31726 | Mod Village | SF | 5,500 |
| 31727 | Mod Village | SF | 7,040 |
| 31821 | Mod Village | SF | 6,144 |
| 31822 | Mod Village | SF | 6,144 |
| 31823 | Mod Village | SF | 7,000 |
| 31825 | Mod Village | SF | 5,500 |
| 31826 | Mod Village | SF | 6,144 |
| 31828 | Mod Village | SF | 7,000 |
| 32126 | Mod Village | SF | 200 |

# Appendix - Preliminary Project Schedule